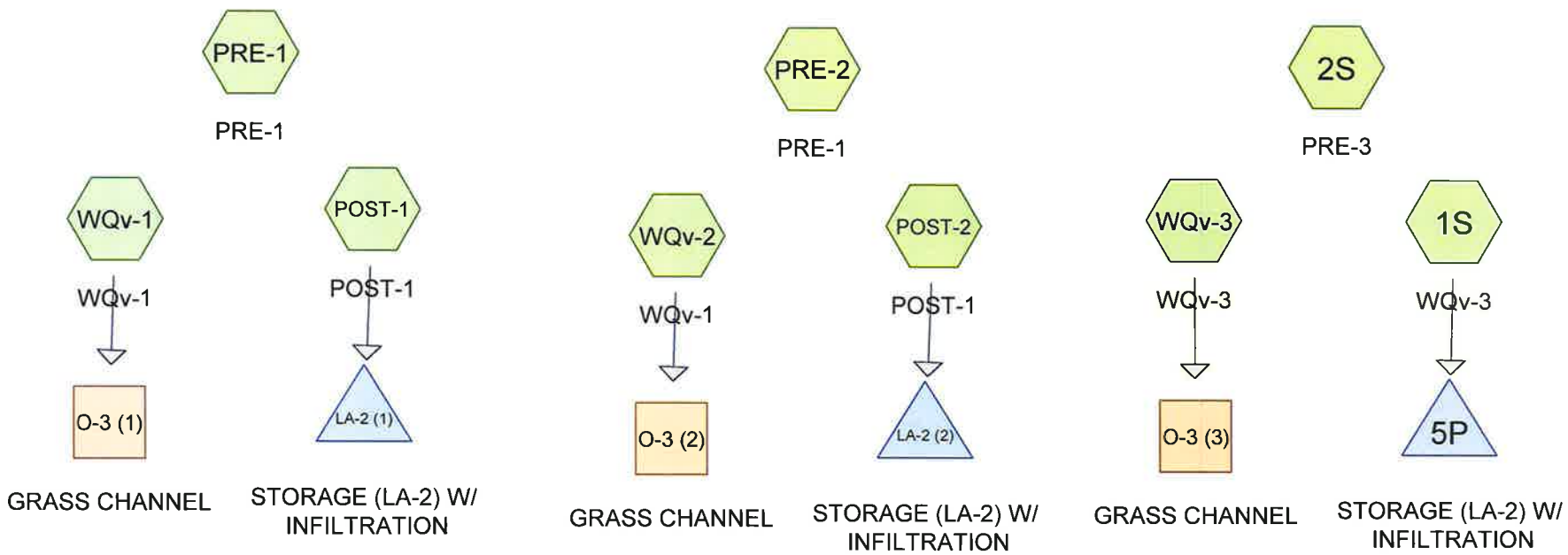

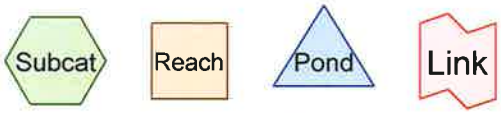

Routing Diagram for STORM

Prepared by {enter your company name here}, Printed 4/18/2016

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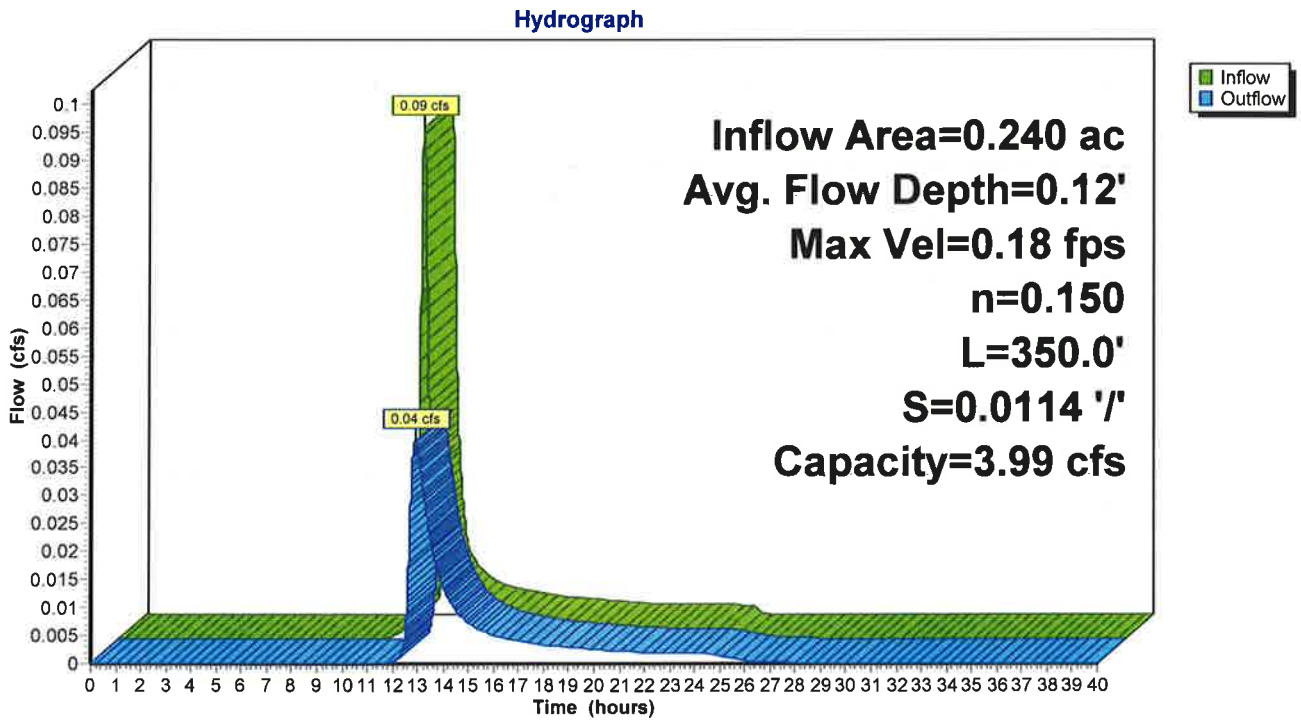
Reach O-3 (1): GRASS CHANNEL



Summary for Reach O-3 (1): GRASS CHANNEL

Inflow Area = 0.240 ac, 0.00% Impervious, Inflow Depth = 0.33" for WQv event
Inflow = 0.09 cfs @ 12.11 hrs, Volume= 0.007 af
Outflow = 0.04 cfs @ 12.89 hrs, Volume= 0.007 af, Atten= 57%, Lag= 46.4 min

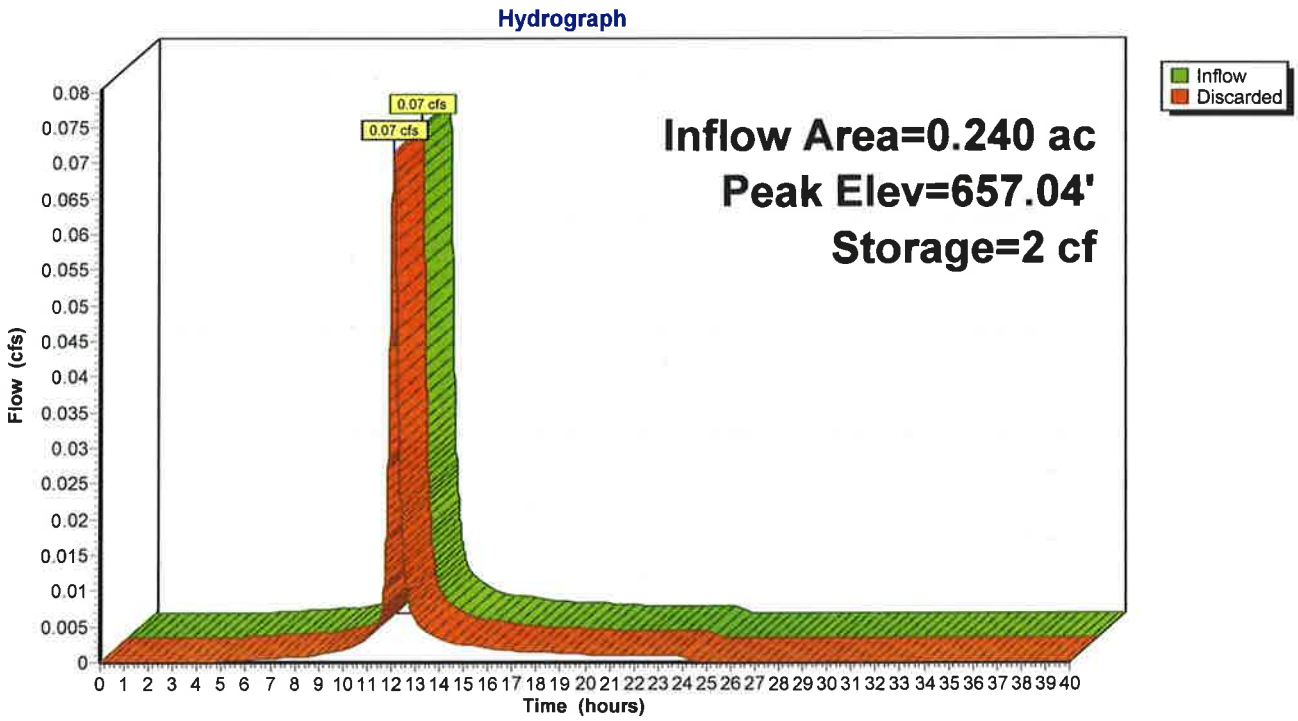
Routing by Stor-Ind+Trans method, Time Span= 0.00-40.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.18 fps, Min. Travel Time= 33.1 min
Avg. Velocity = 0.07 fps, Avg. Travel Time= 85.5 min

Peak Storage= 79 cf @ 12.33 hrs
Average Depth at Peak Storage= 0.12'
Bank-Full Depth= 0.75' Flow Area= 7.1 sf, Capacity= 3.99 cfs

0.50' x 0.75' deep channel, n= 0.150
Side Slope Z-value= 12.0 '/' Top Width= 18.50'
Length= 350.0' Slope= 0.0114 '/'
Inlet Invert= 665.50', Outlet Invert= 661.50'

‡

Pond LA-2 (1): STORAGE (LA-2) W/ INFILTRATION



Summary for Pond LA-2 (1): STORAGE (LA-2) W/ INFILTRATION

Inflow Area = 0.240 ac, 37.55% Impervious, Inflow Depth = 0.26" for WQv event
Inflow = 0.07 cfs @ 12.09 hrs, Volume= 0.005 af
Outflow = 0.07 cfs @ 12.10 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.5 min
Discarded = 0.07 cfs @ 12.10 hrs, Volume= 0.005 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.01 hrs
Peak Elev= 657.04' @ 12.10 hrs Surf.Area= 0 sf Storage= 2 cf

Plug-Flow detention time= 0.4 min calculated for 0.005 af (100% of inflow)
Center-of-Mass det. time= 0.4 min (799.6 - 799.1)

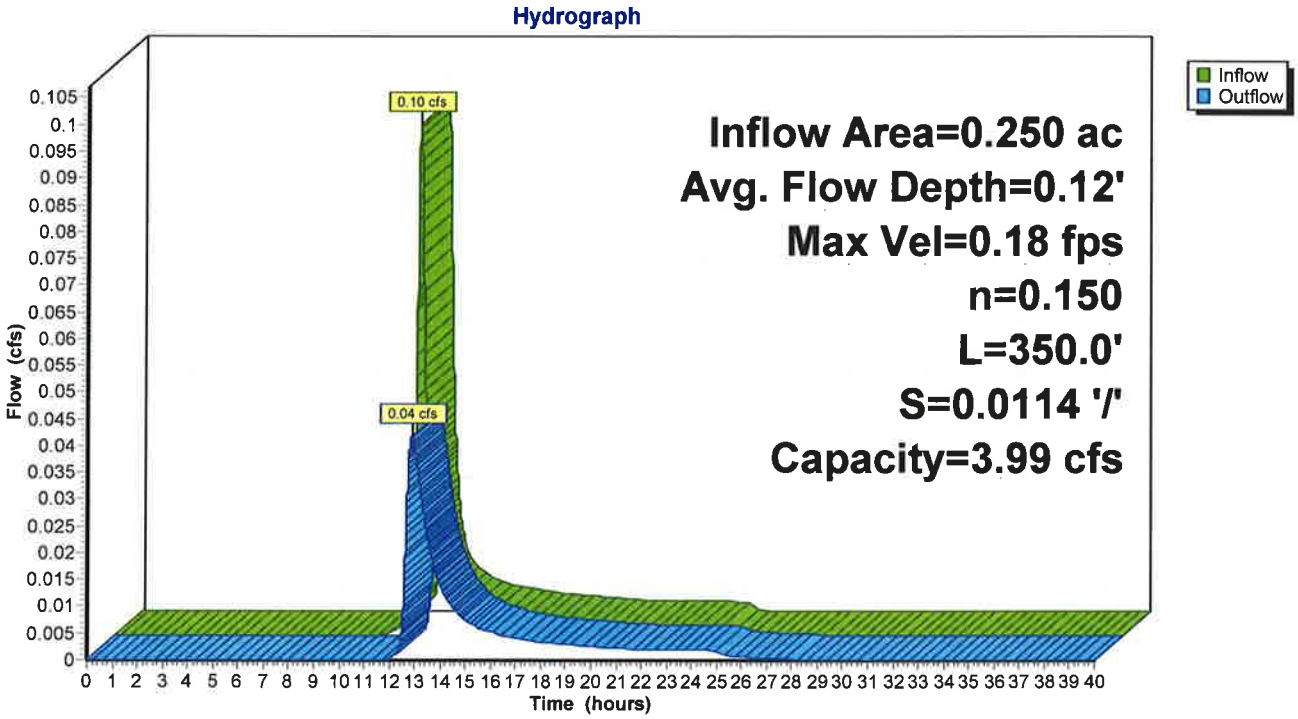
Volume	Invert	Avail.Storage	Storage Description
#1	657.00'	215 cf	**Custom Stage Data** Listed below

Elevation (feet)	Cum.Store (cubic-feet)
657.00	0
658.00	54
659.00	107
660.00	161
661.00	214
662.00	215

Device	Routing	Invert	Outlet Devices
#1	Discarded	657.00'	**0.10 cfs Exfiltration at all elevations**

Discarded OutFlow Max=0.10 cfs @ 12.10 hrs HW=657.04' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.10 cfs)

Reach O-3 (2): GRASS CHANNEL



Summary for Reach O-3 (2): GRASS CHANNEL

Inflow Area = 0.250 ac, 0.00% Impervious, Inflow Depth = 0.33" for WQv event
Inflow = 0.10 cfs @ 12.11 hrs, Volume= 0.007 af
Outflow = 0.04 cfs @ 12.88 hrs, Volume= 0.007 af, Atten= 56%, Lag= 46.1 min

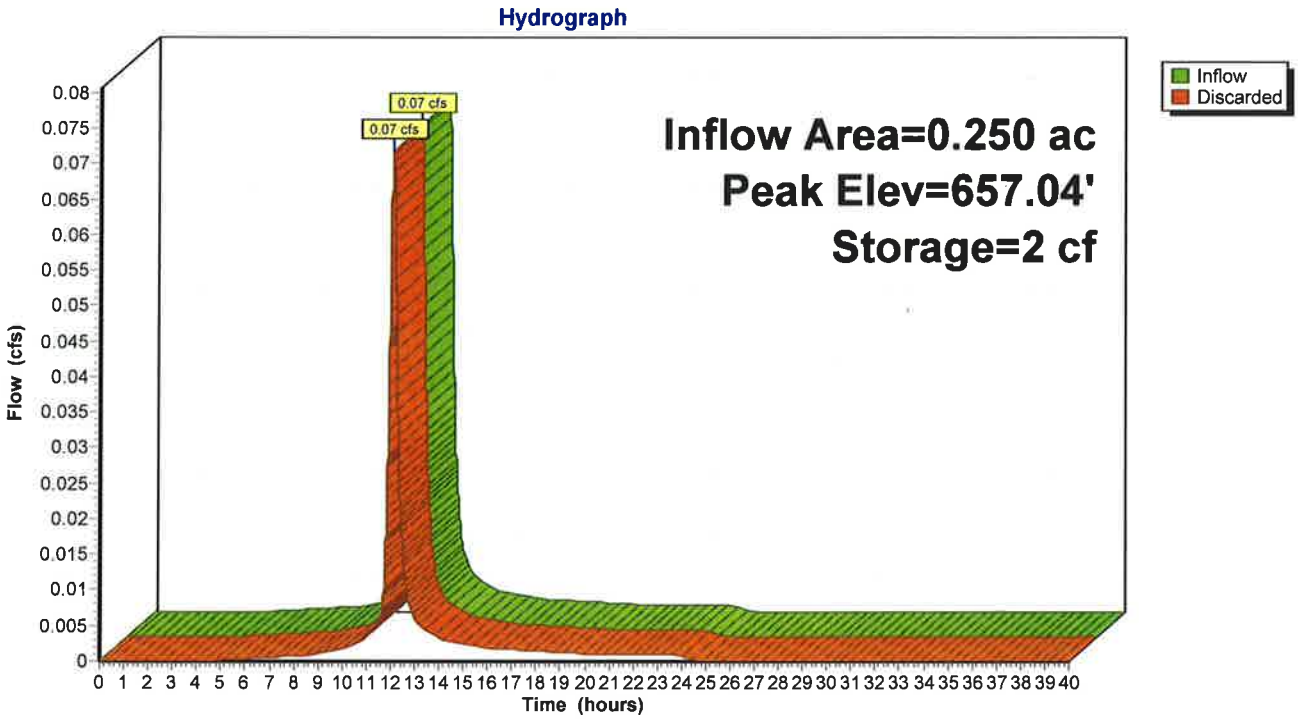
Routing by Stor-Ind+Trans method, Time Span= 0.00-40.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.18 fps, Min. Travel Time= 32.7 min
Avg. Velocity = 0.07 fps, Avg. Travel Time= 84.9 min

Peak Storage= 82 cf @ 12.33 hrs
Average Depth at Peak Storage= 0.12'
Bank-Full Depth= 0.75' Flow Area= 7.1 sf, Capacity= 3.99 cfs

0.50' x 0.75' deep channel, n= 0.150
Side Slope Z-value= 12.0 '/' Top Width= 18.50'
Length= 350.0' Slope= 0.0114 '/'
Inlet Invert= 665.50', Outlet Invert= 661.50'

‡

Pond LA-2 (2): STORAGE (LA-2) W/ INFILTRATION



Summary for Pond LA-2 (2): STORAGE (LA-2) W/ INFILTRATION

Inflow Area = 0.250 ac, 36.07% Impervious, Inflow Depth = 0.25" for WQv event
Inflow = 0.07 cfs @ 12.09 hrs, Volume= 0.005 af
Outflow = 0.07 cfs @ 12.10 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.4 min
Discarded = 0.07 cfs @ 12.10 hrs, Volume= 0.005 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.01 hrs
Peak Elev= 657.04' @ 12.10 hrs Surf.Area= 0 sf Storage= 2 cf

Plug-Flow detention time= 0.4 min calculated for 0.005 af (100% of inflow)
Center-of-Mass det. time= 0.5 min (799.5 - 799.0)

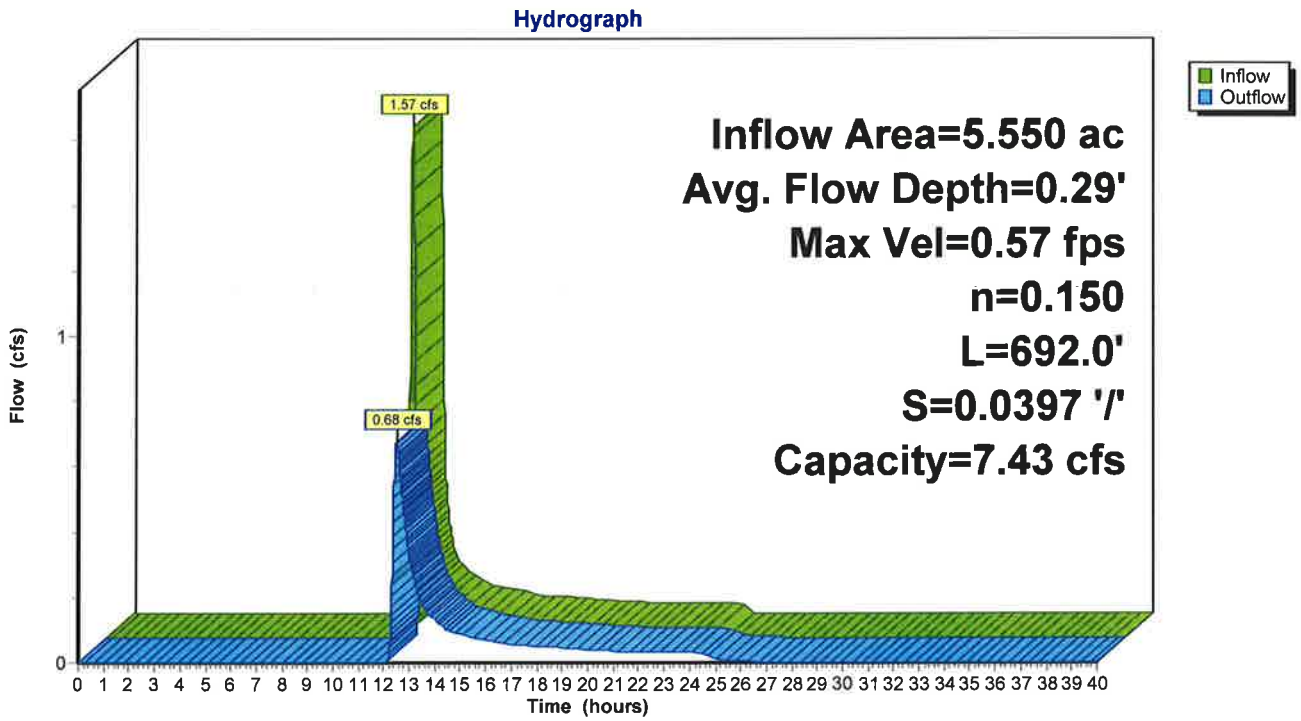
Volume	Invert	Avail.Storage	Storage Description
#1	657.00'	215 cf	**Custom Stage Data** Listed below

Elevation (feet)	Cum.Store (cubic-feet)
657.00	0
658.00	54
659.00	107
660.00	161
661.00	214
662.00	215

Device	Routing	Invert	Outlet Devices
#1	Discarded	657.00'	**0.10 cfs Exfiltration at all elevations**

Discarded OutFlow Max=0.10 cfs @ 12.10 hrs HW=657.04' (Free Discharge)
└─**1=Exfiltration** (Exfiltration Controls 0.10 cfs)

Reach O-3 (3): GRASS CHANNEL



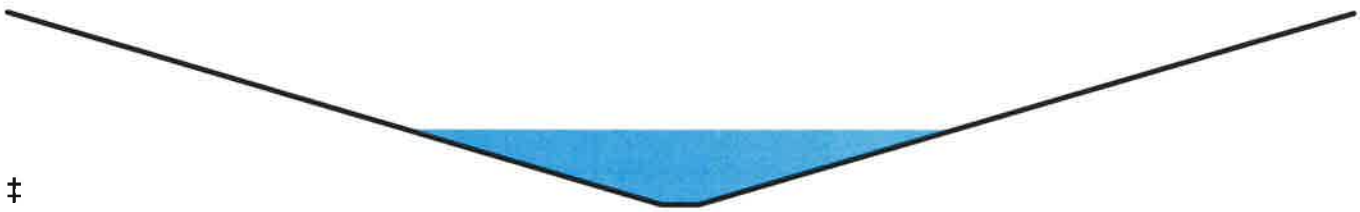
Summary for Reach O-3 (3): GRASS CHANNEL

Inflow Area = 5.550 ac, 0.00% Impervious, Inflow Depth = 0.20" for WQv event
Inflow = 1.57 cfs @ 12.03 hrs, Volume= 0.091 af
Outflow = 0.68 cfs @ 12.49 hrs, Volume= 0.091 af, Atten= 57%, Lag= 27.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-40.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.57 fps, Min. Travel Time= 20.1 min
Avg. Velocity = 0.19 fps, Avg. Travel Time= 60.8 min

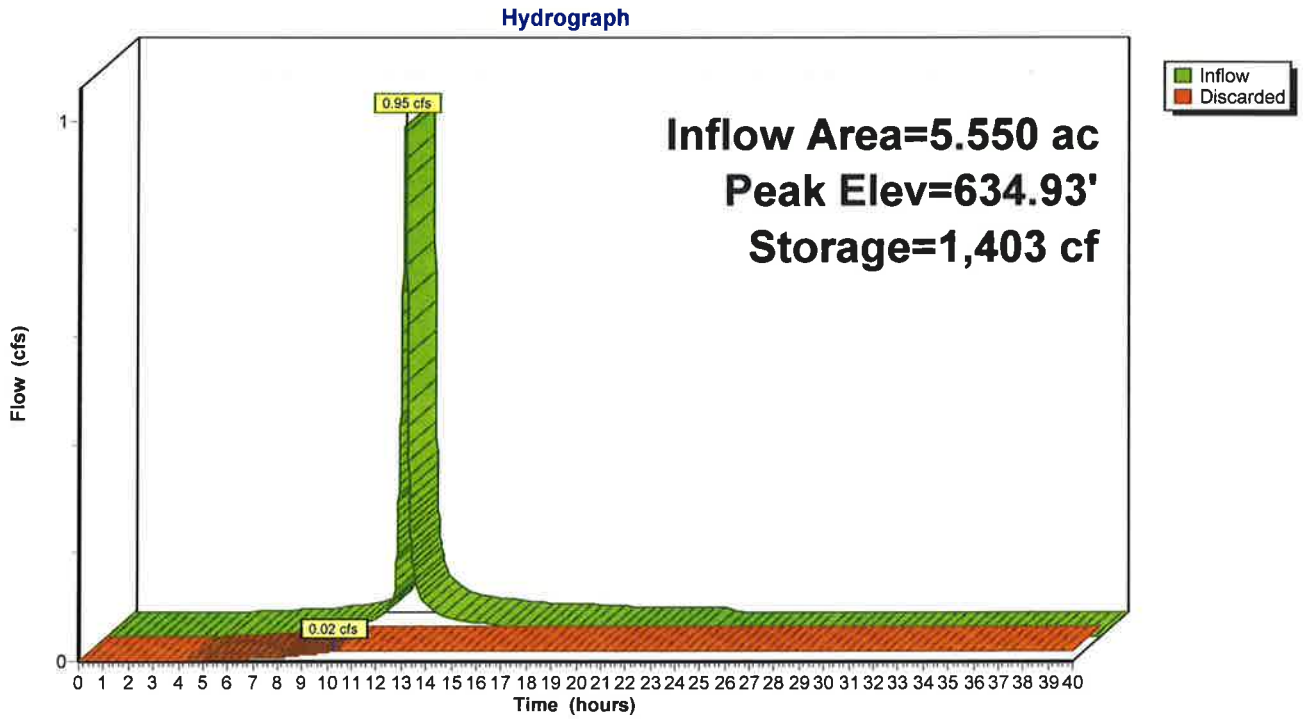
Peak Storage= 819 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.29'
Bank-Full Depth= 0.75' Flow Area= 7.1 sf, Capacity= 7.43 cfs

0.50' x 0.75' deep channel, n= 0.150
Side Slope Z-value= 12.0 '/' Top Width= 18.50'
Length= 692.0' Slope= 0.0397 '/'
Inlet Invert= 661.50', Outlet Invert= 634.00'



‡

Pond 5P: STORAGE (LA-2) W/ INFILTRATION



Summary for Pond 5P: STORAGE (LA-2) W/ INFILTRATION

Inflow Area = 5.550 ac, 16.58% Impervious, Inflow Depth = 0.12" for WQv event
Inflow = 0.95 cfs @ 12.01 hrs, Volume= 0.054 af
Outflow = 0.02 cfs @ 10.24 hrs, Volume= 0.053 af, Atten= 98%, Lag= 0.0 min
Discarded = 0.02 cfs @ 10.24 hrs, Volume= 0.053 af

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.01 hrs
Peak Elev= 634.93' @ 15.98 hrs Surf.Area= 0 sf Storage= 1,403 cf

Plug-Flow detention time= 660.2 min calculated for 0.053 af (98% of inflow)
Center-of-Mass det. time= 646.2 min (1,441.9 - 795.6)

Volume	Invert	Avail.Storage	Storage Description
#1	633.00'	1,476 cf	**Custom Stage Data** Listed below

Elevation (feet)	Cum.Store (cubic-feet)
633.00	0
634.00	463
635.00	1,476

Device	Routing	Invert	Outlet Devices
#1	Discarded	633.00'	**0.02 cfs Exfiltration at all elevations**

Discarded OutFlow Max=0.02 cfs @ 10.24 hrs HW=633.02' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.02 cfs)